

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026941**Date Inspected:** 21-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1430**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA**CWI Name:** Chris Concha**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Maintenance Travelers**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Westmont Industries (WMI) jobsite in Santa Fe Springs, California for the purpose of observing fabrication and QC functions for the SAS Superstructure, Bid Item #99, Maintenance Traveler and Bid Item #100, Maintenance Traveler (Bike Path).

**Traveler Trolley Train Suspension System Assembly**

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes and 5 helpers continuing disassembling bike path trolley train links suspension system links in preparation for welding revised brake mounts to links plates.

**Miscellaneous Traveler Modifications**

This QA Inspector randomly observed Westmont Industries (WMI) production fitter, Mr. Larry Swanson (WID #3058), and observed fitting and welding activities on material, for the SAS Travelers Supplementary Platforms. Mr. Swanson was observed tack welding using approved Flux Cored Arc Welding (FCAW) process, welding in 2F position. WMI is aware that they are proceeding at their own risk pending drawing approval.

**Miscellaneous Mechanical**

This QA Inspector randomly observed Westmont Industries (WMI) production welder, Mr. Daniel Grayum (WID # 3049), performing fitting and welding activities on material, for the Traveler Navigation Light Mounts A950 & B950. Mr. Grayum was observed fitting and tack welding using approved Flux Cored Arc Welding (FCAW) process, welding in 2F positions. WMI is aware that they are proceeding at their own risk pending drawing approval.

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### Visual Inspection

QC Inspector Mr. Chris Concha and this QA Inspector performed visual inspection (VT) on miscellaneous mechanical components. A total of eight - E2/E3 –EB Actuators Anti Twist Members Assembly A365 and A465, a total of four - FRL Unit Supports Assembly A918A, a total of six - Lubricators Support Brackets Assembly A920A, and a total of six Lubricators Support Brackets Assembly A920B. Items observed by QC/QA appear to comply with contract documents. Note: Magnetic Particle Testing not required on Mechanical components per ABF-RFI- 002568.

This QA Inspector randomly observed that Smith Emery, CWI, QC Inspector Mr. Chris Concha was present, during the above mentioned welding and fitting activities. During random observation, this QA Inspector observed that the applicable WPS's and copies of the shop drawings, appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. This QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. This QA Inspector randomly observed QC Inspector Mr. Concha verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

### RPI Coating (Blast and Paint)

This QA Inspector performed random shop observations and observed that RPI Coating is on site to continue coat applications on the SAS WB Traveler. QA Inspector was informed by RPI Coating Quality Control (QC) Representative Mr. Preston Keen that RPI is going to sweep/spot blast and apply the Sherwin Williams Zinc Clad II plus prime coating today. Later in the morning this QA Inspector randomly observed that RPI personnel performing sweep/spot blasting activities on the SAS WB Traveler fixed stair bottom side of steps and rails. After sweep/spot blasting was completed, QA Inspector then observed Mr. Keen performing random surface profile checks on the sweep blasted base metal surfaces. This QA Inspector observed Mr. Keen utilizing a Testex Press-O-Film and a micrometer to perform the testing. During observation, this QA Inspector observed that the readings appeared to be 2.8 mils, 3.3 mils, and 3.3 mils. Testing observed by QA Inspector appears to be in compliance with the contract requirements.

Later in the shift, this QA Inspector randomly observed RPI Coating performing what appeared to be primer application activities within what appeared to be within and 8 hour time frame from the above mentioned sweep blasting activities. Environmental readings taken by RPI at the time of the coating application are as follows Air Temperature 46/69 F, Relative Humidity 70/50, Wet Bulb Temperature 41/59 F, Dew point 36/51 F and Surface Temperature 42/70 F.

QA Inspectors Mr. Fintan Shanley and this QA performed a DFT (dry film thickness) measurement on the SAS WB Traveler, prime application of the Sherwin Williams Zinc Clad II plus prime coating applied to the fixed stair section top of steps and outside side rails. A total of thirteen measurements on the SAS W/B, were taken randomly throughout the structure in accordance with SSPC PA2 criteria. The overall average was not in compliance with the contract requirements of 90 microns to 150 microns. QA Inspector's informed RPI Coating Mr. Keen of QA findings. Mr. Keen agreed and stated that RPI will apply additional coating to the above mentioned areas.

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QA Inspectors Mr. Fintan Shanley and this QA performed a DFT (dry film thickness) survey of the E2/E3 W/B Traveler, SAS/E2/E3-EB&WB Elevating Platforms and the E2/E3-EB&WB Balconies on the Sherwin Williams, Polysiloxane XLE-80 topcoat. The Sherwin Williams, Polysiloxane XLE-80 had been spray applied by RPI Coating. A total of thirty-three measurements on the E2/E3 W/B, a total of thirty-five measurements on the SAS-E2/E3-EB&WB Elevating Platforms, and a total of six on the E2/E3 EB&WB Balconies were taken randomly throughout the structure in accordance with SSPC PA2 criteria. The overall average was in compliance with the contract requirements of 200 microns to 325 microns. Measurements that were found to be below the minimum requirement and were tagged with masking tape for the painters to perform touch up. The topcoat was found to be well cured and to generally meet the contract requirements.

This QA noted above items observed appear to comply with contract documents.



### Summary of Conversations:

As stated within this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Brannon, Sherri
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell, Bill
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QA Reviewer
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